



SF Environment

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Regional Preparation for Electric Vehicles

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Regional EV Preparation

- Current Status...1st Phase in Bay Area
- Planning Factors
- Funding Support
- Issues
- Development of a Regional Strategy

Starting Point

1st Phase - Political Commitment

Quest to be “EV Capital”

Mayors of
San Francisco
San Jose
Oakland



City of San Francisco

1st Phase...Underway

- Public Chargers

Municipal garages

80 chargers at 20+ locations
by end 2011

- Public Chargers

Commercial locations

10-20 locations this year

- Fast Charge Stations

Commercial locations

1-2 this year

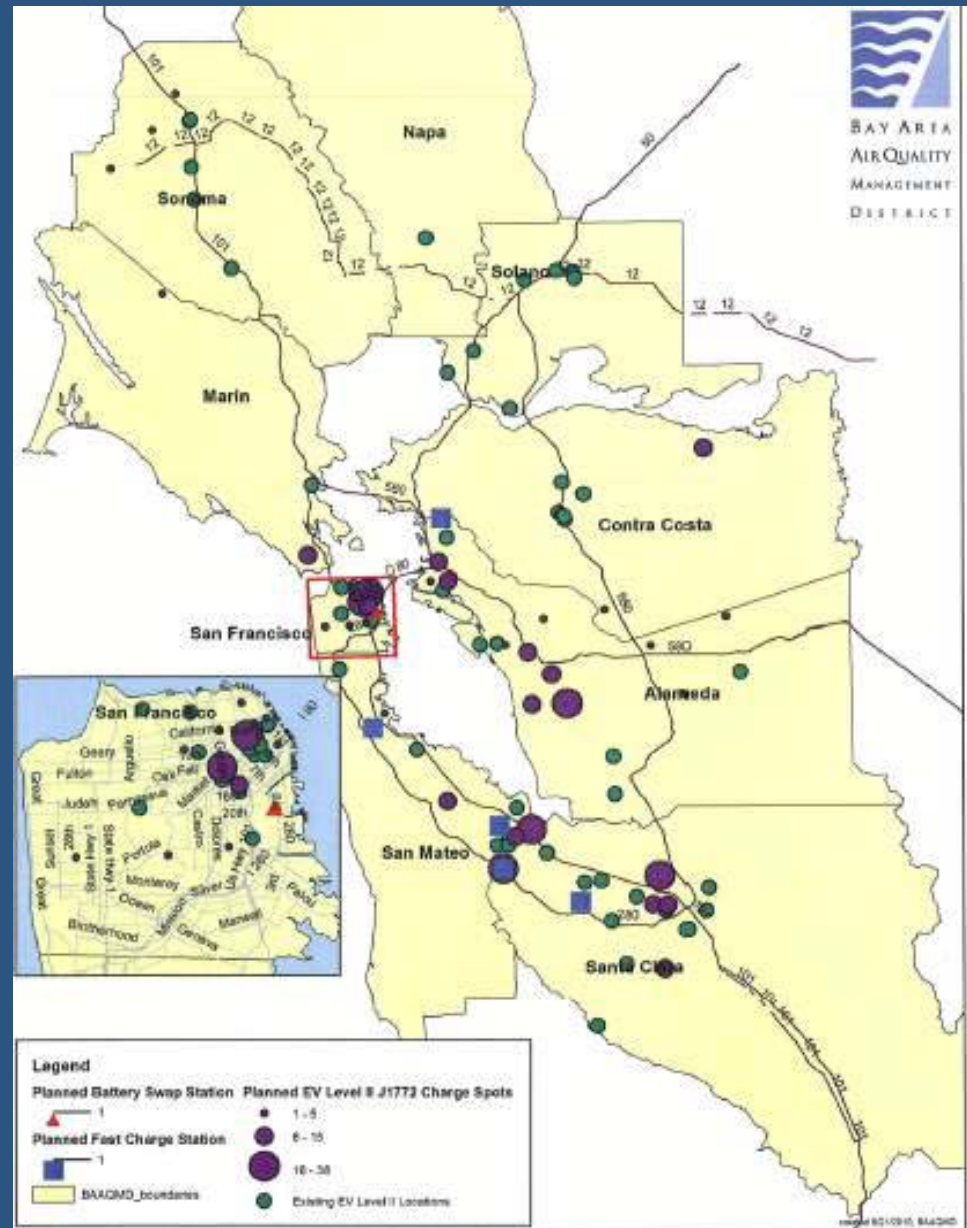


Bay Area Region

1st Phase...underway

- Public Chargers
500+ with current grant funding
- Fast Charger Stations
30-50 with current grant funding

(Map: sample locations from regional grant applications)



Bay Area Region

1st Phase...underway

Streamline EV charger installation

Develop common guidelines for EVSE permits and inspection through ICC councils

Promote rapid local EVSE installation times by educating & coordinating OEMs, utilities, contractors, & permitting authorities...same-day permits, or instant on-line (as in San Francisco)

Develop consumer information checklist for EV buyers...with links to auto OEMs, utilities, electricians, permitting authorities, local, customized implementation...e.g., SFE website

Planning Factors

Quantitative Factors

- Public infrastructure...*how much, where?*
- Municipal vs Commercial public infrastructure...*what's the mix?*
- Determining the "power" mix...*Lev 1, Lev2, and Fast charge*
- Availability of resources

Planning Factors

Organizational Factors – *government participants*

- City of San Francisco – City working group
 - Mayor's office
 - City Administrator
 - Dept of Environment
 - SF Public Utilities Commission
 - Municipal Transportation Agency (incl. parking)
 - Dept of Public Work
 - Planning Dept
 - Airport and Port Authority

Planning Factors

Organizational Factors – *government participants*

■ Bay Area region

- 9 Counties
 - Including County Transportation Authorities
- 100+ Cities
- Regional Agencies
 - Bay Area Air Quality Management District
 - Metropolitan Transportation Commission
 - Association of Bay Area Governments

Planning Factors

Organizational Factors – *public-private coordination*

- Utilities...PG&E and muni's
- Stakeholder partnership organizations
 - Bay Area Climate Collaborative
 - Business Council on Climate Change
 - Bay Area Council
 - Clean Cities Coalitions (3 in Bay Area)
- Local EV-related companies

Funding Sources

Federal

- DOE/Clean Cities
 - New \$5m RFP...EV planning
- ARRA – ChargePoint America
 - 50 public EVSE in San Francisco
 - ~200 public EVSE in Bay Area
 - ~200 residential in Bay Area

Funding Sources

State (CA)

- CA Energy Commission

- Annual AFV grant program

- \$1.5 Bay Area EV Corridor (via ABAG)...assist ~500 EVSE; 20 fast charge
 - New round to include regional planning grants

- Air Resources Board

- EV rebates...\$5,000 for qualifying EVs

Funding Sources

Regional (Bay Area)

- BAAQMD - \$5m EV Infrastructure
 - Residential charger rebate, ~3,000 residents
 - 30 Fast Charger installations
 - Regional infrastructure planning
- MTC - \$14m Climate Initiative (FHWA funds)
 - 90 EV and EVSEs for 9 local gov fleets
 - EV Taxis
 - 25 EV taxi fleet in San Francisco
 - Battery-switch demo in San Francisco and San Jose; 4 stations and 60 taxis
 - E-fleet car-share project

Funding Sources

Reformulated Gasoline Fund

- Ready Set Charge (via ABAG, EV Communities Alliance, BACC)
 - Regional guidelines for Streamline Installation Process
 - Other regional planning and coordination support

Issues

Challenge of the Garageless!

2/3 of SF housing is multi-family buildings...81% SF housing is renter occupied

Ways to address:

- Outreach & tech assistance for owners and HOAs
- Nearby public chargers
- Fast charger
- Workplace charging
- EV car-sharing



Issues

- Curbside chargers
 - Scarce parking
 - Encroachment/public use issues
 - Cost of power supply and metering
- ADA – making chargers accessible
- “Equitable” distribution of infrastructure

Issues

- Fee for use of municipal public chargers
- Subscription limitations and interoperability of networked systems
- Long term maintenance and network service subscription costs

Developing Regional Strategy

Bay Area EV Strategic Council

- Participants
 - Political leaders
 - All regional government organizations
 - Utility
 - EV-related businesses
 - Business/stakeholder organizations, inc Clean Cities Coalitions

Developing Regional Strategy

Bay Area EV Strategic Council

- Working groups...2-3 year action plans
 - Aggregated purchasing
 - Public education
 - Strategic infrastructure planning & development for "customer satisfaction"



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Thank You

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